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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/459,260	12/10/1999	EDWARD MARGOSCIN	5053-30700	9934

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ERIC B MEYERTONS
CONLEY ROSE & TAYON PC
PO BOX 398
AUSTIN, TX 787670398

EXAMINER
PATEL, JAGDISH

ART UNIT	PAPER NUMBER
3624	

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/459,260	MARGOSCIN ET AL.	
	Examiner	Art Unit	
	JAGDISH N PATEL	3624	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *10 December 1999* .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-35* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-35* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Specification

1. The disclosure is objected to because of the following informalities:

The specification fails to describe the invention in a manner that distinguishes it from the prior art. The Detailed Description of the Invention (Preferred embodiments) p. 5-18 in most part describes the prior art as applicable to certain embodiments of the invention. For example, the description provides discussion of "computer system", "memory", "server", "middleware" are old and well known prior art concepts and presented as such. The specification, therefore, fails to conform to the following requirements of the MPEP.

Detailed Description of the Invention: See MPEP § 608.01(g). A description of the preferred embodiment(s) of the invention as required in 37 CFR 1.71. The description should be as short and specific as is necessary to describe the invention adequately and accurately. Where elements or groups of elements, compounds, and processes, which are conventional and generally widely known in the field of the invention described and their exact nature or type is not necessary for an understanding and use of the invention by a person skilled in the art, they should not be described in detail. However, where particularly complicated subject matter is involved or where the elements, compounds, or processes may not be commonly or widely known in the field, the specification should refer to another patent or readily available publication, which adequately describes the subject matter.

The specification is also objected to as being unclear in recitation of "problems outlined" that the invention is allegedly tries to solve. Under heading "Summary of the Invention", p.3, the specification recites "A middleware program .... And a business transaction server may in large part solve the problems outlined above." However, the preceding paragraphs outline the related (prior) art in general form without clearly identifying the problems that would be addressed by the present invention.

The specification also fails to clearly recite what the applicant regards as invention. As discussed above, the Detailed Description of the Preferred Embodiments fails to do so. For example, p. 1-8 provides discussion of various elements of a multi-

channel interface system for business applications and p. 12-14 provides detailed background information on object-oriented programming systems well known in the art. On p. 8, Figure 2 is described as "one embodiment" (of the invention). However, this "embodiment" is only recited is described in terms of network elements of prior art (WAN, LAN, topogy, protocols, media etc., see p. 9-10).

Appropriate correction is required.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 1-35 are rejected under 35 U.S.C. 103(a) as being unpatentable over McDonough et al. (US Pat. 6,115,693).

Examiner's note: the following definition of CORBA architecture is extracted from web site http://www.trinity.edu/~rjensen/245glosf.htm#CORBA and provided for convenience of the applicant, since many features recited in the claims are facilitated by CORBA which is the platform used in the McDonough reference.

CORBA= Common Object Request Broker Architecture is in competition with Microsoft's OLE/DCOM object-oriented Middleware technology for business applications. CORBA is most popular in communications Middleware using an Object Request Broker ORB. CORBA evolved out of TCP/IP. DCOM is bundled with the Windows 2000 operating system but has lackluster support for other operating systems. CORBA is more flexible with other operating systems. Both CORBA and OLE/DCOM are designed to distribute objects or assembly of applications from discreet, self-

contained components. Both are appealing in the fast growing technology of "object middleware." Object middleware has corporate appeal due to the ability to provide highly abstracted object-oriented programming interfaces. Microsoft added new terminology in this area. For example, COM depicts a Component Object Model to describe the base model used for building components. The term DCOM is the Distributed form of COM. ActiveX (formerly OCX) is the packaging technology for controls and supercedes prior Visual Basic Controls known as VBX. OLE no longer means object linking and embedding. OLE now refers to a collection of technologies. For interactive computing on the web, see Distributed Network Computing. A good textbook chapter on CORBA is given at http://ei.cs.vt.edu/~wwwbtb/fall.96/book/chap20/index.html. Also see RPC and http://www.trinity.edu/rjensen/260wp/260wp.htm#ODBC.

Claim 1: McDonough teaches a system comprising:

a server configured to process business transactions (servers operated by Content providers, Fig. 4 and L 426, ...434, col. 8 L 61-67);

a middleware program communicatively coupled to the server (context manager 402, Fig. 4 and col. 8 L 51- 60, which provides management of the information);

a channel communicatively coupled to the middleware program and to the server (channel is shown as customer contact access methods and shown in Fig. 4 as kiosk 424, call center 422, phone 420 etc.); and

an interface program communicatively coupled to the channel and to the middleware program, wherein the interface program is configured to receive data and a command that will initiate. a business transaction (the context manager also performs functions of the interface program as described in col. 8 L 51-67, management capability for multiple customer access resources which share common business processes);

wherein the interface program receives data from the channel and transmits the data to the middleware program (an inherent feature of a middleware CORBA as discussed in col. 9 L 25-30, also refer to description of the context manager discussed in analysis of above steps).

McDonough, while teaches the system substantially as claimed, however, fails to explicitly, recite that the middleware program validates portions of the data, transforms the data into a form required by the server, and transmits the transformed data to the server. It is noted such functionality, is inherent and essential to successfully deploy the communication applications of McDonough in the CORBA architecture ((an inherent feature of a middleware CORBA as discussed in col. 9 L 25-30, also refer to description of the context manager discussed in analysis of above steps).

Official notice is taken that validation of data into a form required by a server is old and well known process step, and thus required in a data communication method involving a plurality of communication channels. In particular, where the application requires data inputs within a certain domains, the codes are written to accept the data that would only conform to rules consistent with the nature of application. Example, name to be input as alpha characters, birthday specified as month-day- year etc. (Exemplary reference is US Pat. 6,405,364 which teaches a building techniques in a development architecture framework).

It would have been obvious to one of ordinary skill in the art at the time of invention to implement the validation of the data received over the interface because validation would provide conformity to the format requirements and limits imposed by the server to facilitate further processing of the data.

Claims 2. The system of claim 1, wherein the middleware program receives a result from the business transaction server and transfers the result to the interface program (Fig. 4 context manager, 402).

Claim 3-6. The system of claim 1, wherein the channel comprises a kiosk (a computer terminal, a call center, a computer terminal), electronic data transfer (refer to customer access methods shown in Fig. 1 and Fig. 4 heterogeneous systems 406).

Claim 7-8 . The system of claim 1, wherein a local area network (wide area network) communicatively couples the channel to the server.

Claim 9. The system of claim 1, wherein values of data used to check the validity of data transferred to the middleware program from the interface program may be changed without changing code of the middleware program (col. 9 L 25-30, a feature of the CORBA used for distributed computing and object messaging).

Claims 10 and 11. the system of claim 1, wherein acceptable values for portions of the data are stored in at least one domain file, and wherein the middleware program generates an error code if the portions of the data do not have acceptable values (inherent feature of context manager because as described in col. 9 L 52-62 as the Quality Center which performs reporting 508, messaging and trouble shooting 512).

Claim 12. The system of claim 1, wherein the middleware program transfers data to a plurality of business transaction servers during the processing of a business transaction (refer to Fig. 4, context Manager 402, transfers data to a plurality of transaction servers 404).

Claim 13. The system of claim 1, wherein the middleware program comprises computer code written in an object-oriented programming language (col. 9 L 25-30, CORBA, features of openness and functionality).

Claim 14. The system of claim 1, wherein the middleware program is extendable without altering source code of the middleware program ((col. 9 L 25-30, CORBA, inherent to the architecture) .

Claims 15. The system of claim 14, wherein an extension to the middleware program comprises computer code that is stored in a package and run when the middleware program runs.

Claims 16-25. All limitations of claims 16-25 have been analyzed as in claims 1-15.

Claims 26-35. All limitations of claims 26-35 have been analyzed as in claims 1-15.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Shah, Ashish; Chapter 19. World Wide Web and Object Technology, 1996, from http://ei.cs.vt.edu/~wwwbtb/fall.96/book/chap19/index.html.

Bounting et al. (US 6,134,530) discloses a rule based routing system and method for a virtual sales and service center.

Boyle et al. (US Pat. 5,717,747) teach a telecommunication system infrastructure that facilitates easy insertion of feature software into existing telecommunication systems and easy integration o f the new calling features and their implementing software with existing features.

Kreiner et al. (US Pat. 6,295,526) teaches a method and system for processing a memory map to provide listing information representing data within a database.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jagdish Patel whose telephone number is (703) 308-7837. The examiner can normally be reached Monday-Thursday from 8:00 AM to 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vincent Millin, can be reached at (703) 308-1038. The fax number for Formal or Official faxes to Technology Center 3600 is (703) 305-7687. **Draft faxes may be submitted directly to the examiner at (703) 746-5563**.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 308-1113 or 308-1114. Address for hand delivery is 2451 Crystal Drive, Crystal Park 5, 7th Floor, Alexandria VA 22202.

Jagdish N. Patel
(Examiner, AU 3624)
July 23, 2002